

1 Attorney Docket No. 83085

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3 ELASTOMERIC EJECTION SYSTEM WITH
4 ACOUSTICALLY IMPROVED CHECK VALVE

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6 ABSTRACT OF THE DISCLOSURE

7 A system for launching bodies from a submarine includes a
8 pump for transferring seawater to an elastomeric ejection tank,
9 and a check valve that permits transfer of the seawater to the
10 tank, and closes upon filling of the tank. The valve includes a
11 head and a seat, a stem having fixed thereon the head and a disk
12 having a circular protrusion extending toward the seat, a cup
13 mounted around the stem and having a circular depression in a
14 surface thereof, and radially extending holes disposed in the
15 cup. During valve closure, the disk protrusion enters the cup
16 depression forcing water in the depression to exit the cup
17 through a primary restrictive path of an annular gap between the
18 protrusion and depression and a secondary restrictive path of the
19 radially extending holes, to slow the valve head in movement
20 during engagement with the valve seat.